REMARKS

This response is submitted in reply to the Final Office Action mailed on August 23, 2006. Claims 1-4 are pending in the patent application. Claims 1 and 4 have been amended. No new matter has been added by this response.

Claim 4 is rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with a written description requirement. Specifically, the Patent Office states that the phrase "a global attribute" in claim 4 is unclear and is not supported by the specification. Applicant has amended claim 4 to change the phrase "a global attribute" to be "a winning attribute." The phrase "a winning attribute" is supported in the specification at page 3. Applicant submits that the amendment to claim 4 overcomes the § 112 rejection.

Claims 1-4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,708,163 to Kargupta ("*Kargupta*") in view of U.S. Patent No. 6,675,164 to Kamath ("*Kamath*") and in further view of the "Distributive Binding of Classification Rules," by Cho and Wuthrich, published in January, 2002 ("*Cho*"). Applicant disagrees with and traverses this rejection for the following reasons.

Amended claim 1 is directed to a method for distributed data mining that includes the steps of invoking agents by a mediator, beginning attribute selection by a plurality of agents, and passing a best attribute or winning attribute having the highest information gain from each of the plurality of agents to the mediator. Based on the winning attributes received by the mediator, the mediator selects a winning agent from the plurality of agents. Data splitting is initiated by the winning agent and the split data index information (i.e., left and right nodes) resulting from the data splitting, is sent to the mediator. The mediator then forwards or sends the split data index information generated by the winning agent to each of the plurality of agents. Data splitting is

then initiated by each of these agents based on the split data index information. Partial rules are generated and saved, and a complete set of rules is outputted to the plurality of agents. The combination of *Kargupta*, *Kamath* and *Cho* does not disclose or suggest such subject matter.

Kargupta is directed to a collective data mining from distributed, vertically partitioned featured space. The Patent Office states that *Kargupta* discloses passing a best attribute or attribute having the highest information gain from each of the plurality of agents to the mediator. (Col. 28, lines 49-55). Applicant disagrees. *Kargupta* states that:

> It computes the information-gain for each variable and assigns a variable to the root that maximizes the expected information-gain.....once a variable is assigned to the root, the ID3 computes information gained for its children and continues to add new notes if the information gain is significant. (Col. 13, lines 36-39 and lines 52-55).

Kargupta, therefore, is not "passing a best attribute from <u>each</u> of set plurality of agents to said mediator" as in the claimed invention (emphasis added). Instead, *Kargupta* assigns a single variable to the root that maximizes the expected information-gain. *Kargupta* also does not disclose or suggest passing the variable that is the root to the mediator or passing any of the variables to a mediator or facilitator. Furthermore, *Kargupta* does not disclose or suggest selecting a winning agent from a plurality of agents based a best attribute obtained from each of the agents. The Patent Office therefore relies on *Kamath* to remedy the deficiencies of *Kargupta*.

The Patent Office states that *Kamath* discloses selecting a winning agent from a plurality of agents sent to the mediator and initiating data splitting by the winning agent. *Kamath*, however, does not disclose or suggest such subject matter. In fact, the data mining method described by *Kamath* is <u>significantly different</u> from the data mining method of the claimed invention.

The key difference, as stated above, is that claimed method includes the steps of selecting a winning agent from a plurality of agents and initiating data splitting by only the winning agent. The data split index information resulting from the data splitting by the winning agent is then used to initiate data splitting by the other agents.

Kamath does not disclose selecting a winning agent but instead selects a winning feature. (Col. 14, lines 9-25). Additionally, each of the processors in *Kamath* split its data based on the winning feature (not on the data split index information) and sends the ID numbers or left and right node information to each of the processors. In contrast, in the claimed invention, data splitting is *only* initiated by the winning agent to determine the left and right node information (i.e., the split data index information) that is sent or forwarded to the other agents. Therefore, the split data index information is based only on data splitting performed by the winning agent and not by any of the other agents.

Cho is used to disclose the step of "generating and saving partial rules." *Cho* does not disclose or suggest the steps of initiating data splitting by a winning agent and sending the split data index information resulting from that data splitting to initiate data splitting by the other agent as disclosed by the claimed invention. *Cho* therefore does not remedy the deficiencies of *Kargupta* and *Kamath*.

Additionally another difference between the cited references and the claimed invention is that none of the cited references, when taken alone or in combination, disclose or suggest passing a best attribute from each of a plurality of agents or processors to a mediator. Instead, the cited references disclose passing best local split information to all of the agents or processors.
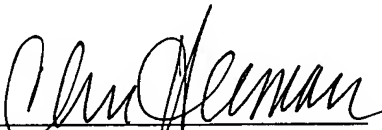
For at least these reasons, Applicant submits that amended claim 1 and claims 2 and 3, which depend from amended claim 1, are each patentably distinguished over the combination of *Kargupta*, *Kamath* and *Cho* and in condition for allowance.

Amended claim 4 includes similar subject matter to claim 1. Accordingly, Applicant submits that amended claim 4 is patentably distinguished over the combination of *Kargupta*, *Kamath* and *Cho* for the same reasons provided above with respect to claim 1, and in condition for allowance.

In light of the above, Applicants respectfully submit that claims 1-4 are patentable and non-obvious over the art of record because the cited art does not disclose, teach or suggest all of the elements of the claimed invention. Accordingly, Applicants respectfully request that claims 1-4 be deemed allowable at this time and that a timely Notice of Allowance be issued in this case.

No fees are due. If any other fees are due in connection with this application the Patent Office is authorized to deduct the fees from Deposit Account No. 19-1351. If such a withdrawal is made, please indicate the Attorney Docket No. (53372-400100) on the account statement.

Respectfully submitted,

By_____
Christopher S. Hermanson
Attorney for Applicant
Reg. No. 48,244
Customer No. 27717